

December 20, 1948.

Dr. Robert Guthrie,
National Institutes of Health,
Bethesda 14, Md.

Dear Bob,

I'd be glad to answer your question in more detail, if I could, but it's my experience that it takes a two-hour seminar to get it across. In short, (and Lac, etc. \nearrow) crosses between a B-M- "H" stock and a "normal" T-L-B₁-Lac-Mal-Gal-Xyl-Ar- have given rise to prototrophs which are apparently B-M-T-L-B₁-Lac- etc., can be maintained as such on synthetic medium, but which segregate out on complete medium to give a large variety of recombination types. (e.g. B-M-T-L-B₁-Lac-Xyl- etc) Therefore, I've taken these prototrophs to be heterozygous (and therefore diploid), in distinction to the prototrophs which one usually finds, which are quite stable, and have presumably already segregated from the zygote.

I wonder whether I can't ask you to send me this queer coli that you said might be Gal-Lac \nearrow -- Gal \nearrow Lac-. We do fermentation tests of that sort as a daily routine, and could very easily check on the situation.

With best wishes,

Yours sincerely,

Joshua Lederberg